

## **Convergence of Technology and Diversity: Experiences of Two Beginning Teachers in Web-Based Distance Learning for Global/Multicultural Education**

**By William Gaudelli**

Schools are institutions that reflect changes in society. One of the most significant social developments over the past two decades is the ubiquity of technology. A fundamental element of life in the information age is the integration of computer technology into nearly every conceivable aspect of life, from transportation, communication, finance, and education. To say that people have become dependent on computers and related technologies such as the Internet is to state the obvious.

Schools have increasingly come to rely on technology to support instruction and operations. Rationales for this move vary but generally speak to the need to prepare students to function in a technology-rich, information-based society. Young people, now referred to as digital natives since they have only known a technologically, plugged-in society, have great familiarity with tools like email, instant messaging, and the Web and rely heavily on these for stimulation, communication, and, indeed, learning.

Teacher education also reflects larger social developments as these institutions are necessarily focused

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*William Gaudelli is an associate professor of social studies education in the Department of Teaching and Learning Principles of the College of Education at the University of Central Florida, Orlando, Florida.*

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on the needs of P-12 students along with current and future teachers. Institutions for teacher education have incorporated learning tools such as computers, email, the Internet, learning software, databases, and multimedia formats to prepare candidates to work in the technologically enabled environment of the classroom, clearly one of the most significant developments in the preparation of beginning teachers over the last two decades. The National Council for Accreditation of Teacher Education (NCATE) standards include 65 references to technology, most of which center on the teacher candidates ability to employ instructional technology effectively with P-12 students. A simultaneous development also of great significance, though of a different character, has been the widespread incorporation of diversity and global themes in teacher preparation. NCATE standards are replete with references to teaching diverse learners (42 in total) and diversity represents one of the six standards used to measure the quality of teacher preparation institutions. “One of the goals of this standard is the development of educators who can help all students learn and who can teach from multicultural and global perspectives that draw on the histories, experiences, and representations of students from diverse cultural backgrounds” (Professional Standards, 2002, p. 32). Since NCATE is the accrediting body of over 575 institutions that produce approximately two-thirds of all beginning teachers nationally, the emphasis on technology and diversity is pervasive in teacher preparation.

Teacher educators have also started incorporating distance learning in the preparation and professional development of teachers. Distance learning, while not a new addition to the educational landscape, has changed substantially due in large measure to the use of personal computers and their requisite tools (i.e., email, instant messaging, and the Web). Web-based courses allow for interactivity, multimedia/multilingual integration, and multiplatform capacity in synchronous and/or asynchronous formats all within a ubiquitous learning space, the Web (Hartman, 2002). Significant growth of Web-based distance learning courses has occurred in teacher education units and, in some cases, teacher educators have led this effort (Hartman).

We are witnessing a time of convergence in teacher education, where ideas that were previously viewed separately are beginning to be seen in light of each other. Perhaps this pattern indicates how the information age has altered knowledge constructs while simultaneously providing avenues to transcend and challenge established disciplinary boundaries. Whereas global/diverse perspectives were typically of interest to the sociologically minded faculty/teacher candidate and technology the domain of math and science, this is increasingly less the case. Math/science teacher candidates are not excused from the expectations of teaching diverse learners and seeking global connections, just as future teachers of the humanities are not given a pass on the call to develop P-12 student capacity in technology. Integration stems from recognition by teacher educators that effective teaching is rooted in a thoughtful engagement of the whole child. Since students do not formulate knowledge, skills, and attitudes related to technology and diversity, for example, in compartmentalized ways, teachers in preparation need to

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focus on integrating their knowledge to address the real life complexity of P-12 classrooms. Web-based distance learning in global/multicultural education provides a forum for scholars to develop their understanding of how integration is adopted by teacher candidates in this confluence of change.

How do two beginning social studies teachers who engaged in Web-based distance learning to enhance their global/multicultural teaching capacity interpret their experience? This study explores the exegesis of two beginning teachers in a teacher preparation and development, Web-based distance learning course in global/multicultural pedagogy. Before illustrating their experiences prior, during, and after the Web-based distance learning course, I begin with a brief examination of the literature in distance learning and global/multicultural curriculum, along with a description of the particular course studied. I move then to examine the experiences of two beginning teachers around the issue of convergence, suggesting generative themes that emerge from their interpretation of the course. Given the limited number of participants in this study, I forego any suggestion that the results are generalizable, as the emphasis here lies in raising questions from this study that may guide future inquiry about the integration of technology and global/diversity learning, and perhaps, other attributes of teacher candidate preparation and development. As such, this effort is not intended to evaluate the quality of this particular educational program, the merits of Web-based distance learning in the preparation and professional development of teachers, or to make universal claims about the nature of integrating technology and diversity. Rather, I use the experiences of these beginning teachers to raise questions for further inquiry about the convergence of distance learning and global/multicultural learning in teacher education.

## **Distance Learning**

Distance learning, though significantly altered in the technology rich era of the late 20<sup>th</sup> Century, is not new. Prewitt (1998) traces the current trend in Web-based distance learning to its antecedents, particularly the development of skill-oriented distance learning courses. Farmers were given access to distance learning courses via mail through the Universities of Chicago, Pennsylvania, and Wisconsin as early as 1890 (Prewitt; Stevenson, 2000). Great Britain, whose educational system was widely exported throughout the world via their empirical control, has a substantial history of distance learning. In Africa, Asia, and the Caribbean, for example, Britain mandated and oversaw a colonial system of education with far-reaching historical implications and extensive oversight mechanisms. This centralized and global system encouraged the growth of distance learning, particularly after televisions were available in the 1950s. Australia, after its establishment as a sovereign nation, continued to use distance learning employing shortwave radio as a mode of instruction to serve distant, rural communities (Stevenson, 2000). In the 1970s, Latin American countries engaged a similar effort to educate isolated, rural

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populations through educational television, or ETV. Though distance learning has existed for over a century, computer technology has given rise to increased attention and resources over the past two decades. The U.S. Department of Education (1999) defines these efforts as “education or training courses delivered to remote (off campus) locations via audio, video (live or pre-recorded), or computer technologies including both synchronous and a-synchronous instruction.”

While distance learning courses that rely on traditional forms of technology such as television and radio remain, distance learning has been widely retooled to use technologies such as the Web, instant messaging, and course platforms such as Blackboard and WebCT. With the incorporation of these new technologies in distance learning come a need to consider the attributes and problems associated with the tools. Prewitt (1998) suggests that the common problem in earlier distance education efforts was related to the repackaging of existing teaching that failed to accommodate pedagogy to the particularities of television, radio, or mail (p. 188). He argues that Web-based distance learning advocates should identify the unique learning potential of instant messaging, for example, rather than simply redacting new tools into existing processes. Hartman (2002) similarly contends that distance learning requires new pedagogical tools and alternative teaching strategies in order to be effective.

The value of substituting media or tools of instruction to improve learning, however, has been called into question by a wide-body of research analyzed by Clark (1983). He urges caution about attributing learning differences to the media itself, as his meta-analysis demonstrates that five decades of comparing the educational effects of different media indicate “no significant difference” and sees this line of research as a scholarly dead-end (p. 450). He suggests that when differences in learning outcomes are present, they are attributable to choices made by the teacher (to tape record a lecture for future review), rather than the media itself (tape recorder). Such claims warrant consideration of how teachers can judiciously employ diverse media, rather than the inherent value of educational technology as causally producing learning.

The emergence of online distance learning in post-secondary institutions is happening with great speed. Post-secondary institutions have increasingly turned to Web-based distance learning because it is convenient for students and provides greater accessibility to non-traditional students. In 1998, 34% of all post-secondary institutions offered some distance education courses with another 20% planning to offer courses in the period 1998-2001 (U.S. Department of Education, 1999, p. 17). According to this U.S. Department of Education study, 54,470 distance learning courses were offered nationally with approximately 1.6 million students enrolled in those courses, compared to roughly 14 million post-secondary students enrolled in all courses during the same period. The National Center for Education Statistics found that while in the early years of the 1990s Web-based distance learning was confined to sporadic courses within programs of study, increasingly universities and colleges are offering entire programs virtually (1999). Further, they suggest that online universities that simply did not exist in the early 1990s are growing at dizzying rates.

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Research about Web-based distance learning effectiveness offer mixed results. Studies suggest a variety of conclusions, including (1) higher student satisfaction with Web-based distance learning compared to face-to-face instruction (Dziuban, 2002; Navarro and Shoemaker, 2000), (2) matched or exceed achievement of distance learning students when compared to face-to-face situations (Hilgenberg and Tolone, 2000; Keegan, 2000), and (3) increased engagement in a-synchronous discussions and decreased likelihood of withdraw to from distance learning courses (Dziuban, 2002). Smith, Ferguson, and Caris (2003) studied 22 professors of discussion-based and math courses that are simultaneously teaching Web-based and face-to-face versions of the course. They found that the depth of discussion in Web-based courses was greater, faculty workloads were increased in online courses, and a measure of equality between instructor and student was identifiable. These optimistic findings about the value of Web-based teaching are tempered, however, by math instructors who perceived online teaching as an obstacle to effective pedagogy due to the particularities of math teaching.

Some scholarship has addressed dimensions of Web-based courses for social studies teachers, though their conclusions are applicable beyond social studies curriculum. The findings of these studies have also been mixed. Mason (2000) examined online teacher education for pre-service history teachers and found that opportunities for reflective dialog were enhanced, avenues for self-directed professional dialog emerged, translation of technology use into teaching occurred, and videoconferencing was preferred by students to Web-based dialogs. Sunal and Christensen (2002) facilitated online dialogs between pre-service teachers in Paraguay and the United States, noting that participants had markedly different conceptions of civics based upon their national origin. These cross-national insights guided students in both situations to augment their understandings of democratic schooling. Merryfield (2000) analyzed online teacher dialogs and characterized their discussions about racism and privilege as frank and open. She problematizes this benefit, however, by indicating how the online format also depersonalized these interactions.

Instructional technology, such as Web-based distance learning, has also received a fair share of criticism, mostly from those skeptical of its inherent benefits and suspicious of its social effects. Postman (1993), perhaps one of the most vibrant critics of educational technology generally, asserts that it is a form of edutainment which threatens to unravel our social fabric (Postman, 1993). Critics like Postman raise “concern(s) about the effects of technology upon history and the life of the mind . . . characteristic of certain deeply established discourses in the Western intellectual community” (Trinkle, 2001, p. ix). Beyond these theoretical critiques, others have suggested, similar to Clark (1983), that the modality of instruction does not translate into a significant difference in student achievement. Russell (2002) developed an extensive database of 355 citations to educational articles over the past century that document “no significant difference” in student achievement when distance learning is compared to traditional modes. Despite this discourse,

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Web-based distance learning remains a significant and growing force in post-secondary education.

### **Conceptualizations of Global and Multicultural Education**

Global and multicultural education have shared origins, similar foci, and generally complementary goals. Global education, emerging in the 1960s, is curriculum designed to prepare young people to live in an increasingly problematic and interconnected world. A number of events illustrated the lack of a world community during the 20<sup>th</sup> Century, such as horrific genocides, devastating world wars, use and proliferation of weapons of mass destruction, and burgeoning human population growth (Gaudelli, 2003). Institutions were established, many in direct response to these global problems, including the United Nations and countless subsidiary groups, tens of thousands of non-governmental organizations, international covenants on human rights, treaties limiting weapons of mass destruction, and other agreements calling for a cessation of environmental degradation.

Defining global education has been a source of consternation for scholars in the field, one that dates back to its origins (Case, 1993; Kirkwood, 2001; Kniep, 1987). Pike and Selby (2000) provided a comprehensive articulation of the field when they asserted that it unites the pedagogical tradition of child-centeredness with a content orientation that is world-minded around four key dimensions: *spatial* (matters of where phenomena exist), *inner* (how the self is seen in terms of society) *issues* (socially contentious matters) and *temporal* (related to time). Their conception extends logically from Hanvey's (1976) five dimensions of a reoriented global outlook: perspective consciousness, state of planet awareness, cross-cultural awareness, knowledge of a global dynamic, and human choices. Perhaps the most succinct definition of the field is the declarative statements offered by Anderson, Nicklas, and Crawford (1994): You are a human being; your home is planet Earth; you are a citizen of a multicultural society; you live in an interrelated world; and you can act to meet global challenges.

Multicultural education which also emerged in the 1960s was originally constituted as ethnic studies. In the United States, multicultural education grew out of social context where issues of prejudice, discrimination, and violence were of great public concern. Multicultural discourses also arose, particularly in what is referred to as the West, though the national contexts that sparked these diversity movements are unique (Cushner, 1998). As multicultural education has increasingly become institutionalized in education, it has evolved from an ethnic-focused, tolerance-promoting orientation towards a broader definition of diversity and a more ambitious agenda to promote social justice. While there are differences in emphases within the fields of multicultural and global education, four themes are congruent among the sub-fields: cultural pluralism, social justice, affirming culture in pedagogy, and striving for educational equity (Merryfield, 1996, 2002).

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Education in the United States is notoriously deficient with respect to teaching for global civic competence, diversity, and social justice (Diaz, Massialas, & Xanthopoulos, 1999; Sleeter, 1992; Tye, 1999). Global and multicultural educators have long recognized the peripheral quality of these knowledge bases, specifically in P-12 curriculum. Beginning teachers lack a comprehensive preparation to teach for global diversity (Adler, 1991; Boston, 1997). Professional development of beginning teachers, generally defined as the first three years of teaching, is perhaps the most critical stage, as teachers, in a desperate effort to survive, may use teaching that will "calcify into ineffective teaching methods" (Chubbuck, Clift, Allard, and Quinlan, 2001, p. 373). Particularly with respect to global/multicultural learning, teachers often lack sufficient background to engage students effectively with these curricula, which may in turn lead to simplistic teaching that can undermine the knowledge, skill, and affective goals in these fields.

**A Web-based Global/Multicultural Course**

The focus of this study is the experiences of two beginning teacher in a Web-based course in global/multicultural pedagogy.<sup>1</sup> The title of the course was Distance Learning for Global and Multicultural Teachers (DL-GE/MC). The course was offered using WebCT software and included six goals for participants:

1. Prepare for teaching through collaboration with diverse partners.
2. Critically assess the ways in which culture is presented in media and materials used in schools.
3. Implement diversity in teaching using current sources of information.
4. Include diversity and global thinking into future pedagogy.
5. Develop exemplary lesson plans to teach about multicultural diversity.
6. Share the information learned in the course with colleagues in current teaching assignment.

Twenty-four students were enrolled in the course from throughout North America and Europe. DL-GE/MC lasted for nine weeks. The professor who taught the course employed technical assistants, international students, and discussion leaders. Technical assistants maintained and updated the online resources with input from the international students and professor. International students served as guides for learning about particular cultures, responding to questions and interacting in dialogs. Discussion leaders, who were graduate assistants, facilitated conversations about issues that arose related to the course, such as how to interact with guest speakers. Most course resources were provided through an annotated Webliography. Annotations offered teachers and teacher candidates a critical analysis of the information provided by each site and tips about where to find useful information therein. The instructor provided links to articles that illustrated the nature of global/multicultural education. Students completed six assignments: (1) posting an explanation of their views about teaching, (2) writing creative lesson plans that incorporated course material, (3) developing a plan for implementing what they

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have learned about technology and diversity, (4) posting reflection about their current K-12 students, (5) researching a controversial global/multicultural issue, and (6) participating in online discussions.

### **Methodology**

A phenomenological approach, or one that “describes the meaning of the lived experiences for several individuals about a concept or the phenomenon” was employed (Creswell 1998, p. 51). This framework assumes that there is an essence to the phenomenon being studied (i.e., Web-based distance learning in global/multicultural professional development) that can be identified and articulated by participants through sustained reflection. Interviews, observations of course participation and classroom instruction, and email correspondence allowed the “essential, invariant structure” of the phenomenon to emerge as perceived by the participants (p. 52). Participants engaged in bracketing interviews prior to DL-GE/MC, designed to ascertain teacher perceptions related to distance learning, global/multicultural life experiences, and being a beginning teacher. Participants were interviewed immediately following DL-GE/MC to ascertain what they gained from the course and how they hoped to implement this learning in their classroom. In August, 2002, participants were contacted monthly via email and periodically visited at their school to examine the application of global/multicultural teaching. I was external to the processes of DL-GE/MC other than my work as a researcher and only had access to the activities of the course through the experiences of these two participants. Both participants were previously in courses that I taught and I also served as their academic advisor for their degree programs. I was only able to track the progress of these two participants in DL-GE/MC since the other 22 participants lived elsewhere. Thus, I do not make any claims about the DL-GE/MC experience of other participants, only these two individuals to whom I had access.

I conducted interviews, transcribed those completely, and analyzed those transcriptions for patterns of response within and between the two participants. I developed *in situ* hypotheses through a constant comparative method of analysis and these working theories became the source of questions for later interviews (Creswell, 1998). Informed consent was provided to all participants under the auspices of the internal review board of the sponsoring university. Participants were assured of anonymity throughout the research and publication process, and as such, all names used are pseudonyms. To enhance validity, both participants were provided with copies of the research report and asked to provide feedback as to the extent to which the summary accurately and comprehensively represented their experience in DL-GE/MC. Participant tuition for DL-GE/MC was paid for by a small grant to examine the effectiveness of professional development in global/multicultural education. I was concerned throughout the study that participants might feel obligated to provide responses they thought the funding agent or the

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researcher wanted to hear, a dilemma common to qualitative researchers. I addressed this concern by consistently reminding participants that their honest assessment of the course and its effects was of great importance to ensure reliability of the data. Since patterns identified were consistent across multiple data sources (i.e., observations, interviews, and emails) and member-check procedures were used, I am confident that participants were authentic in their responses.

### **Web-Based Experiences of Two Beginning Teachers**

Two beginning teachers expressed an interest in taking this online course and their tuition was funded through a grant to examine professional development in global and multicultural education. Both participants took the course as an enrichment opportunity rather than for completion of degree or teacher certification requirements. Qualitative data was drawn from participant interviews, observations of student participation in the course, email correspondence throughout the school year, and periodic observation of classroom instruction.

Alysha is a white woman in her mid-20s who is a native Floridian, having spent one year in an international school in Saudi Arabia as a child. Except for some vague recollections of life there, Alysha's experiences with diverse populations have been minimal and she described her hometown as relatively homogenous. She originally obtained a bachelors degree in advertising and worked for an ad campaign to promote milk in schools. As the school liaison, she said that she enjoyed her time with students more than promoting milk, which she viewed as manipulative. She decided to pursue a Masters degree in teaching social studies. Before completing her degree she was hired as an out-of-field teacher for 6<sup>th</sup> grade geography. She did not have a student teaching experience and therefore did not have an opportunity to work with educational technology prior to becoming a teacher. The extent of her preparation for infusing technology in teaching was limited to taking two online courses while in college. Alysha currently teaches in a low SES school with a high immigrant Latino population. Her student load is 169 students, with class sizes that range from 34 to 39 pupils.

Jorge is a late 20s Latino male with an easygoing outlook on life. Jorge's father is a Cuban immigrant and Jorge is proficient in Spanish. Throughout his early life, Jorge faced a great deal of personal struggle, including family poverty, unemployment, and being homeless as a young adult. He graduated with a Bachelors degree in social studies education and anthropology in the semester just prior to the global/multicultural online course and did his student teaching internship in a predominantly African-American, urban school where he experimented with educational technology. Jorge's second undergraduate major is in anthropology. He had what he describes as a life-altering experience working on a relief project in sub-Saharan Africa for seven months. Immediately following the distance global/multicultural course he was hired to teach high school social studies at an urban school in Florida.

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Like Alysha, he has a daunting student load with 135 adolescents of diverse backgrounds, roughly equivalent to the ethnic breakdown of the larger school population (50% Latino, 25% African-American, and 25% white).

Alysha and Jorge offer an interesting contrast in perspectives. Both are beginning teachers, yet Alysha is an out-of-field teacher with no educational technology preparation and Jorge a traditional student with secondary social studies certification along with experience using technology in classrooms. Both taught in economically poor, immigrant gateway communities that reflect a growing trend in the region, but Alysha is monolingual from the suburbs and Jorge is bilingual from a low SES background. Both are interested in global and multicultural education, although Alysha has limited personal experiences to draw upon and the Jorge's is more substantial. Studying these two participants is useful in understanding how DL-GE/MC was differently understood and integrated by them based on their divergent perspectives. Despite these differences, they shared similar experiences around four broad themes: information, technology, pedagogy, and context.

#### ***Information***

Alysha seemed perplexed by the mass of information she encountered in DL-GE/MC. The first words that she used to describe the distance learning course were “overwhelming” and “too much to write in an email.” “The class was overwhelming in the number of resources that were available . . . You go online and get to a Webpage and click on 50 links and you’re there forever . . . it is so overwhelming. I never really studied any world history and there was just so much information and I wanted to know all of it so I would be prepared to teach my kids, and that’s what’s frustrating because I realize I couldn’t.” Jorge shared Alysha’s sentiment that DL-GE/MC was filled with resources. “Teaching about the world is a hard topic to cover in such a short amount of time. The professor admitted that it was a lot of work to do in too short period of time (nine weeks). You needed a high speed Internet connection or forget it, you would be done (laughs) . . . you would never finish. There were so many good Websites, so many resources developed just for teachers. Without the annotated Website, you could wander around for hours looking for some of these Websites and not find them. Instead of clicking on 20 links, DL-GE/MC had Websites that were just for teachers.” Alysha also stated that she benefited from the annotated Webliography in DL-GE/MC, as it helped her to sift through the enormous amount of information made available online.

Alysha’s frustration with information provided in DL-GE/MC, otherwise known as info-glut and her lack of preparation to engage it with her students, was evident (Postman, 1993). The annotated Webliography that suggested using certain aspects within the global/multicultural Websites, was a customizable resource, or one geared to specific user needs (Lankshear, Peters, & Knobel, 2002). Jorge was less daunted by the information during the course, but as he began his new teaching assignment (high school world geography, sociology, and economics), felt over-

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whelmed with the belief that he needed to cover curriculum and integrate information from DL-GE/MC. Materials offered in the course provided both of these beginning teachers with a life-line in their curriculum development throughout the school year, as they often relied upon materials offered in the course to enhance their teaching.

#### ***Technology***

Alysha had high hopes for technology-based pedagogy as she began her second year of teaching. “I am supposed to get five computers in my classroom this year, which will help in teaching from a global perspective.” As she began DL-GE/MC, she spoke enthusiastically about the potential to integrate so many diverse viewpoints through the Web resources. “My favorite is one that was recommended for Africa, where there are newspapers online. This teacher explains that he has the kids pick an issue and follow it online. And there’s another Webpage where you get Japanese perspectives on Africa, which is really cool, fun, and interesting. I have not been able to get off the computer (laughing)! It’s a great tool to get kids looking at different perspectives.” DL-GE/MC clearly sparked her curiosity and offered new ways to think about different perspectives through the use of technology. Jorge also shared this enthusiasm, enhanced by an acuity for using educational technology. He developed his own Webpage that emulated those used in DL-GE/MC, with customizable annotations designed for students, links to global/diversity resources, a moderated discussion board, and a point of access/outreach to parents. “One of the things that I *wasn’t* supposed to get from the course, but I got (laughs), was the way the Website was set up, which is how I’ve set up my class Website, other than just learning the content we were supposed to learn from the course. It helped me to organize my information in teaching and on the ‘net.’”

Alysha’s enthusiasm for integrating technology waned as the hardware she was promised in August was not delivered until late October. “The computers are here but they have not been hooked up yet . . . I told the tech person that it would be okay to wait since we were still doing geography skills (for the first semester, nine weeks).” She initially described feeling impatient about integrating resources from DL-GE/MC in her teaching, but she lost some of that eagerness by the third month of school. When she described her frustration with the lack of technology access, she seamlessly moved to discussing her general frustrations with teaching, suggesting that she sees them as one in the same. Alysha continued struggling with classroom management and planning, which confounded her during the first year of teaching. “What I’ve seen so far, when I want to teach one activity, it takes two days this year. To get them in and get them settled, it takes a lot longer. I don’t know why . . . I can’t figure out why. I just don’t know if they’ll be able to handle it.”

Jorge had relatively fewer classroom management problems and continued to implement DL-GE/MC throughout the year. Jorge created diversity Webquests for his sociology class. He noticed that his students were struggling to define sociological concepts, such as group consciousness, so he led them to Websites where they could

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find different pieces of the definition in order to synthesize a definition. This activity led him to find additional resources for teaching about Uruguay, “a virtual museum with animals depicted with lids on their heads, which helps students visualize concepts like social stratification.” He created links to these sites from his school Webpage and made these searches part of his pedagogical repertoire. Working in a school similar to Alysha with regard to socio-economic context, he also lacked ready-access to hardware, which altered his plans to infuse DL-GE/MC ideas in his courses. Jorge lacked a “home-base” classroom and was, like Alysha, planning to use library computers so that his students could get access to global/multicultural Websites. “A lot of my preparation is looking at how I’m going to use the Websites with students. Eventually, I’d like them to be more critical in the way they use the Websites and technology, but for now, I’m just supplementing information.”

Alysha attempted to use some of the DL-GE/MC Middle East/Southwest Asian Websites during one observation. With the assistance of an aide, she hurriedly moved around the room providing support, though curt and directive, to individual students, frustrated since many of her students did not have school identification and were not allowed to log onto the Internet. Her students were also frequently distracted by pop-up ads. At the end of the day, Alysha commented on its effectiveness. “This is the most frustrating thing I’ve ever tried to do! The students told me it was the first time they have ever been in a library or have ever been online.” She began to consider how she might revise her approach, including being clearer in the teacher prepared Web-guide, encouraging students to avoid pop-up ads, and providing individual time in-class for student Web research. Despite her frustration, students seemed somewhat engaged by the activity. Two boys who were using the Hebrew and Arabic translators shared a serendipitous discovery about the Arabic language: “They don’t have an ‘e’!” Alysha also noted that her earlier classes were highly engaged by the Website, asking many questions about the contents of the Webpage and its authors. Despite her efforts throughout the year to apply DL-GE/MC in her teaching, Alysha nearly abandoned this focus towards the end of the school year: “I have not been doing much in terms of global ed and diversity recently. I feel it’s all I can do just to get them to sit in their seats!”

### ***Pedagogy***

Alysha’s experience in DL-GE/MC clearly influenced the way that she thought about teaching and learning. “DL-GE/MC made me think about the way I taught this year. Instead of just using the textbook, which is what I was doing this past year, also using different articles from lots of perspectives.” Alysha gained ideas about teaching from multiple perspectives and using poetry to support cultural learning, along with some strategies for using technology to teach about the world. “*Rethinking Globalization* had all kinds of ideas about getting the students involved in the community to see how they can actually effect or change the world . . . you can get them to think about things outside of just themselves” (Bigelow & Peterson, 2001).

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Though she struggled with classroom management throughout the year, she continued to rethink her teaching as a result DL-GE/MC.

Jorge was hired as a social studies teacher in August of 2002 just prior to the beginning of school. When asked how he was adjusting to the new school, he said that he was “finally getting into a little bit of rhythm” with regard to teaching. He found that teaching economics was somewhat easier than sociology or world geography, since he taught economics as a student teacher. “I’ve relied a lot more on the textbook, especially in world geography and sociology, using the chapter tests provided. I have been trying to supplement with stuff from the Internet sources in DL-GE/MC, like population graphs and maps. In sociology I gave them a college level reading about Native Americans.” Jorge talked about the tension of teaching for diversity and social justice in a school whose mascot is a famous Native American Indian chief. He said, “Yeah, that hasn’t come up yet, but I plan to deal with it. I plan to have them do a survey and collect some data, asking teachers’ views about it.”

Alysha’s movement away from focusing on global/multicultural curriculum was driven by a perceived lack of student interest. She said that her students were either apathetic or hostile to learning about others, leading her to believe that all of her efforts might be futile. “They just don’t care about it (diversity)...they either don’t care or they make fun of it. They like to make fun of things.” Alysha perceived this hostility to be part of the immaturity of working with 6<sup>th</sup> graders. She suggested that maybe the students were not prepared yet to deal with issues related to global diversity. Despite Alysha’s self-report that she had not integrated DL-GE/MC ideas, there was evidence to the contrary in observations and interviews. She had a map on the wall that was used in the first week of class where students stuck pins to represent where they had lived, traveled, or had relations. “That was pretty interesting because when you looked at it, people from everywhere had been everywhere. I was really excited then.” Students in later periods removed the pins, undermining the visual impact of the activity, something Alysha attributed to their immaturity. When queried as to whether she had used the activity prior to DL-GE/MC, she paused and said, “No, I didn’t think of that, but no, that’s the first time I used that.”

Jorge’s teaching was clearly shaped by the language he learned in DL-GE/MC, referring to some of his students as international students and using ESOL students as cultural informants. “Now that we’re doing Central America, we have a student in class who is from Honduras. She’s very shy, but she did talk briefly about the violence there.” He was considering ways of accessing this cultural knowledge less publicly by having students develop joint multimedia presentations comparing their Anglo, Latino, and African heritages. He was also in the process of defining his teaching style and clarifying his values, as evident in his work with English as second language students. “I focus more on their communication skills through the content we’re working with. Other teachers are telling me just to pass them along, pass them with a D, so kids are used to that and think they don’t have to work. I plan on giving them more opportunity to serve as cultural consultants later in the course,

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as many of them are from Latin America. I guess I'm doing okay with that, but I'm not satisfied". In contrast to Alysha, Jorge's explanation of his teaching focused more on identifying a pedagogical approach rather than a *change* in his teaching

### ***School Context***

Alysha's perception of her school was that it did not support professional development efforts of beginning teachers, especially related to teaching for global diversity. She explained that new teachers periodically went to useful district workshops on classroom management and teaching critical thinking, but no mention was made or support offered for teaching global/multicultural issues. Alysha also indicated that she lacked mentoring, though a system was in place to provide this support. "I had a teacher mentor on my team who did language arts, but she basically just gave me handouts and said, 'Here's what we're doing today.' She really didn't do anything, just got paid." Alysha perceived that her more experienced colleagues were disinterested in assisting her. She planned to have dialogs with people she met in DL-GE/MC. As the war in Iraq began in March of 2003, she talked about a series of emails she received from former DL-GE/MC course participants about alternative viewpoints on the war, but that was the extent of mentoring that she received.

Jorge, like Alysha, experienced little in the way of mentoring, and none at all with regard to his efforts to teach globally and multiculturally. He did not see this as a barrier, however, as he felt generally supported by his department chair. "Everyone is fine with it. They just look at me funny and say, 'Oh, you're still young (laughs). You'll get over it.' But everyone who I've asked is helpful. I'm one of the only people using a personal Webpage. Teachers are trying to avoid using email attachments to send items for copying, preferring the old way. But I prefer to use the email attachment system." When asked if there were colleagues with whom he could plan activities for teaching about diversity, he said, "There's one guy who did Model U.N. last year and he wants to do it again but needs some help. I am really too busy to do much extra stuff right now." Discussions of diversity and global perspectives with teacher colleagues were non-existent in Alysha and Jorge's contexts. Administrators were sensitive about high-stakes assessments, seeking ways to improve instruction in the *basics*. Teaching with a global perspective was viewed either as irrelevant or an obstruction to student achievement on standardized tests.

### ***Inferences***

Synthesizing the experiences of Alysha and Jorge in DL-GE/MC, I offer the following inferences about their stories.

#### ***Inference 1***

*Prior experiences shaped how these beginning teachers confronted information overload, illustrating their previous experiences with global/multicultural learning.*

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Examining Alysha and Jorge's participation in DL-GE/MC, it is apparent that Jorge was able to deal with the quantity and type of information more easily. Why? Two factors in their backgrounds may help explain the difference in their capacity: (1) amount of previous student teaching experience and (2) schema to organize new information. Though both are beginning teachers, their feelings of confidence with pedagogical knowledge bases (content, pedagogy, pedagogical-content, and self) make them feel more or less competent (Shulman, 1987). Alysha frequently struggled with classroom management, which was not a major concern for Jorge. Jorge had two supervised internship prior to his employment, experiences Alysha lacked. Alysha explained that she has had very little formal preparation in global/multicultural education. As Alysha was still in the process of developing a framework for organizing new global/multicultural information, she understandably felt overwhelmed. She described the use of a Website for instruction as "the most frustrating thing" she's ever done. Jorge, though also sensing the mass of information with which he needed to be conversant, had a greater degree of confidence in his ability to sort the information. He previously organized a way to chunk content, which was later influenced by DL-GE/MC. Even while he was more facile in coping with the quantity of new information, he also experienced a measure of hesitation as most of his plans for integrating DL-GE/MC lay in the future.

### ***Inference 2***

*Beginning teachers did not easily identify sources of their pedagogical thinking, yet integrated ideas from the Web-based course into their classrooms.*

An ageless maxim about learning is *the more one knows, the more one realizes what one does not know*. Perhaps a corollary to that adage is, *the more one knows, the less one is able to recall how one's thinking developed*. The immediate response of both Alysha and Jorge was that they had not integrated anything from DL-GE/MC. Upon further reflection in our dialogs, however, it became apparent that both were doing a number of activities directly related to what they learned in the Web-based course. Perhaps this disconnect relates to their translation of the question, which they may have heard as, What content from DL-GE/MC have you taught your students? They were asked, rather, about how they integrated ideas raised in DL-GE/MC, which suggests that participant thinking about their teaching is narrowly focused on the transference of content learned to content taught. It is interesting to note that they interpreted the question differently, as Alysha focused on diversity and global studies while Jorge referred to changes in his thinking about technology. The convergence of technology and diversity may have reached a point in Alysha and Jorge at which they were no longer discernible as separate elements of pedagogy.

### ***Inference 3***

*Transferring pedagogy that is Web-based from a post-secondary distance*

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*learning environment to a secondary context was problematic since convenient technology support did not exist.*

Post-secondary education has clearly made a significant commitment of resources to educational technology in general, and to Web-based distance learning in particular. While there is evidence that technology is growing in the K-12 environment, Web-based distance learning is still a minor initiative in this arena. The ability of teachers to use new pedagogical tools remains inconvenient in many schools and even impossible in some. In Alysha and Jorge's situation, this is compounded by the fact that they are beginning teachers, who tend to be lower on the resource chain, often getting bumped out of computer labs by veteran teachers. Alysha and Jorge experienced two dimensions of the digital divide: the divide between resource rich/poor schools and the divide between high-tech post-secondary environments to lower-tech middle and high school situations.

I use the term convenience in this inference to argue that it is unlikely and unreasonable to assume that teachers will meaningfully and thoughtfully integrate technology when it is inconvenient to access. Consider Alysha, who teaches 169 students, five classes per day, five days a week. This is a demanding task. If resources are not readily available or fairly accessible, it is unrealistic to expect her and similarly situated teachers to arrange for technology access. Hardware access may be available in a lab, but as both Alysha and Jorge experienced, these facilities are too often monopolized by a handful of teachers whose subject area is seemingly more directly related to technology instruction. Since most Web-based teacher preparation and development materials are obviously Internet-based, teachers must have access to these resources when they return to their classrooms. To do otherwise is to promote more frustration among the most vulnerable professionals, those at the beginning of their careers.

### **Conclusion**

Web-based courses, which represent a retooling of long-standing efforts in distance education, are in vogue among post-secondary institutions. Teacher preparation and development has also taken part in this effort, as Web-based distance learning courses are used as a vehicle for the integration of knowledge, skills, and attitudes about teaching with technology and subject area specialization. Such integration, increasingly common in institutions of teacher education, provides an opportunity to explore the extent to which this convergence is understood and practicable by teacher candidates and beginning professionals. This study seeks to illustrate how two beginning teachers understand and incorporate the intersection of technology-based learning and global/multicultural curriculum. I do not offer generalizations about global/multicultural curriculum or distance learning through this query, but rather, raise questions that deserve further investigation. Six questions which might be fruitful in understanding the integra-

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tion of technology and global diversity in the preparation and development of beginning teachers include:

*What assumptions are made about teacher knowledge and action through online professional development oriented towards global/multicultural curriculum?*

Research related to professional development tends to focus on issues of effectiveness. While there is merit in such efforts, an articulation of underlying assumptions related to this work would add significantly to the discourse. What values are implied in the integration of technology and curriculum fields? What values are unique to global/multicultural curriculum? What values are unique to educational technology, particularly Web-based instruction? To what extent are these values congruent or incongruent? Foundational work like this would help those engaged in the preparation and development of teachers to articulate theories about this process. Such efforts at theory building may guide teacher educators as we think about how and where to commit our limited resources for preparation and development.

*What challenges are associated with the integration of knowledge fields among beginning teacher?*

Convergence of technology and diversity is increasingly viewed by institutions of teacher education and organizations like NCATE as a necessary dimension of teacher candidate preparation. It is insufficient to think of knowledge in distinct ways, but rather, as an integrated base that teachers draw on according to classroom situations that arise. Such an approach requires that the person be highly competent, both in their ability to learn about different knowledge bases (e.g., technology and global diversity), but also in how they choose to draw on existing reservoirs of knowledge in complex situations in ways that allow them to act thoughtfully and appropriately. Some of this integration occurs explicitly in coursework like DL-MC/GE, where these two beginning teachers had to become adept with learning technology and learning about global diversity. Yet, the carryover of this integration remains a daunting challenge even for experienced teachers, not to mention those at the beginning of their careers. Scholars of teacher education may need to look more carefully at the ramifications of integrating teacher knowledge bases and develop strategies towards this end.

*What factors promote and inhibit the implementation of preparation and development learning in teacher practice?*

A great deal of research has been done on this question of late, some of which is cited in this study. More is clearly needed. School contexts seem to have emerged as crucial to the implementation of professional learning (Richardson, 1996). If this is tentatively regarded as true, why does the majority of professional development work happen outside of schools? Similarly, why are teachers generally not able to find avenues to explore and develop pedagogical-content knowledge within schools?

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School contexts need a more prominent place in our conversations about professional development so that beginning teachers can negotiate these contexts meaningfully. Study of how that can occur is of critical importance for teacher educators.

*To what degree does the introduction of technology as a pedagogical tool enhance the ability of teachers to employ technology in their classrooms?*

Online learning is being heralded as a cost-saving, efficient, and convenient means of effectively preparing teachers. Is that the case? And if so, are those desirable values in education? If teachers engage ideas with the aid of technology, will they be more likely to thoughtfully use technology with their students? This study of two teachers in two schools suggests that the institutional barriers for employing technology are great. Yet, in both cases, these younger, beginning teachers were able to find ways to integrate in contexts that did not make such infusion convenient. Does this suggest that the digitally native generation that is about to enter the profession will be more likely to employ technology across fields of knowledge? These remain open and intriguing question.

*Does online professional development enhance the ability of teachers to engage global diversity?*

Discourse about global/multicultural issues necessarily involves others. Given that most teachers and students cannot regularly leave their communities to experience the lives of others, does distance learning provide an appropriate forum for teachers to engage people on a shrinking, more connected planet? Queries in this area may likely center upon the authenticity of Web-based interactions as compared to face-to-face encounters, and may yield useful insights about the nature of this difference. It may be that the design and implementation of Web-based distance learning courses may need to be a focus for study, as the particularities of content fields, such as diversity and globalization, may portend using certain tools and omitting others.

*What is the relationship between teacher preparation and development and student learning?*

The link between teacher learning and student learning is the Holy Grail of education. If we can better understand the types of teacher activities that promote student learning, preparation and development could be geared towards those activities. Given the necessarily human quality of pedagogy, it is unlikely that educational research will ever develop a causal relationship between modalities of teacher learning that best promotes student learning. Research that attends to this junction, however, will help us better understand pedagogy, as well as the learning of teachers at the critical stages of induction.

Teacher development is problematic terrain. The difficulty of preparing and supporting teachers is compounded by their need to develop and integrate complex knowledge bases to be used in school contexts that simultaneously do not facilitate integration of knowledge and yet demand teacher performance which requires amalgamation. Teaching for global and multicultural competency, employing

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technology tools, and the means by which those media are thoughtfully used are an illustration of this potential convergence. Teachers, like the beginning professionals in this study, sit at the confluence of these changes, awash in all its possibilities and problems. Attending to those at this critical professional crossroads provides us with greater insight into these significant problems. Understanding the experiences of teachers, particularly those in the nascent stages of their careers, informs our discourse about how to prepare teachers to work effectively in schools and at the same time, opening possibilities in the educational landscape for new scholarly journeys.

### **Note**

<sup>1</sup> All names are pseudonyms to protect the confidentiality of participants and institutions examined in this study.

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